

Public Involvement Meeting US 14 Improvements

Oregon Middle School

October 24, 2018



MSA

Project Team

- WisDOT Southwest Region
 - Karla Knorr, PE, Project Supervisor
 - Alex Hagen, PE, Project Manager
- MSA Professional Services, Inc.
 - Ben Wilkinson, PE, Project Manager
 - Amanda DeAmico, PE, Project Engineer

Meeting Agenda

- Project history
- Proposed improvements
- Design considerations
- Proposed schedule

US 14 Project History

2013 - 2015

- Conducted study to improve safety and operations between WIS 138 and WIS 92
- Range of alternatives examined:
 - New four lane roadway off current alignment
 - Improving existing roadway with spot Improvements
 - Various intersection control options examined, from adding interchanges to closing off some access points
 - Ideas were brought to a public meeting and exchanged between the Department and local residents

US 14 Project History

2013 - 2015

- Realignment alternatives would require a Major highway project, as defined by state statute
 - Statute: Major project is a highway project that exceeds \$30 million and requires approval by the State Transportation Projects Commission and approval by the state Legislature and Governor.

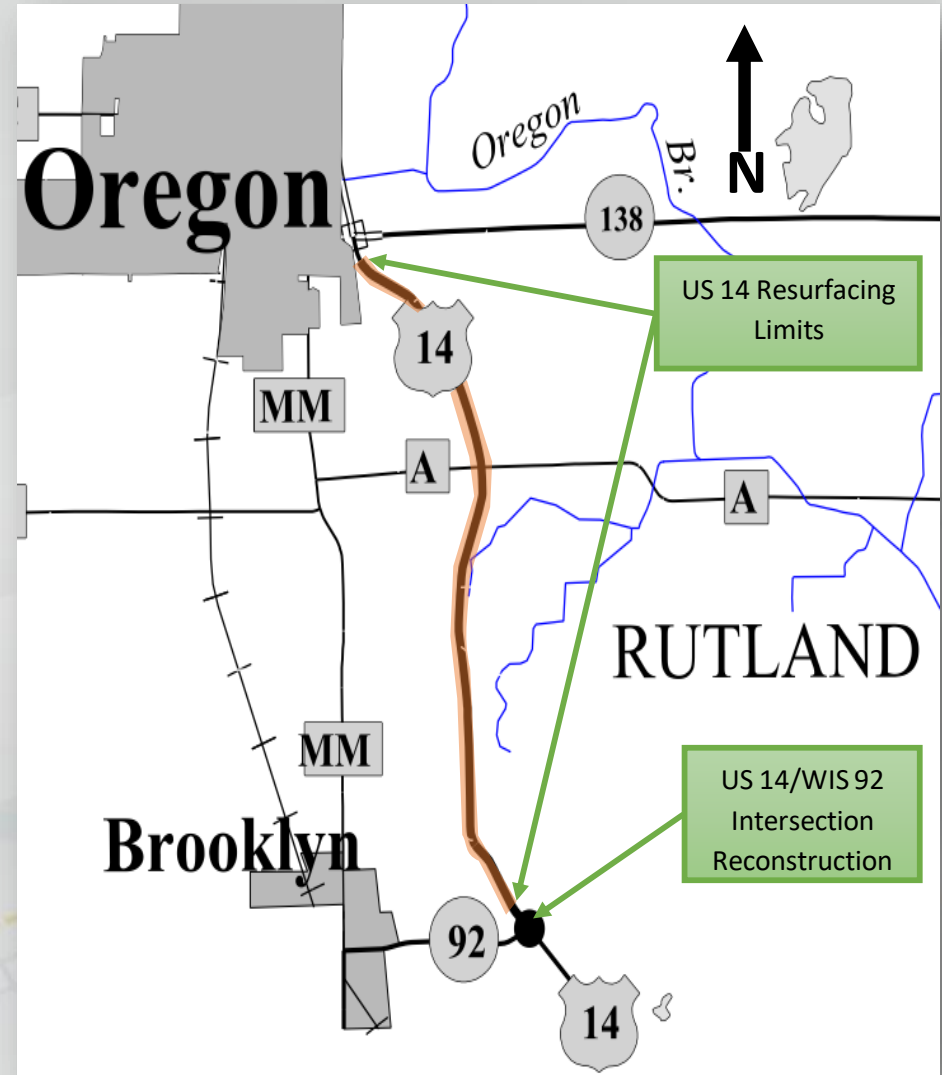
US 14 Project History

2013 – 2015

- In weighing each alternative with the expected safety benefits, environmental impacts, cost, and delivery timeline, WisDOT made the decision to address the most pressing safety, pavement and operational needs of the existing highway at the earliest opportunity
- Will continue to monitor and schedule projects to meet the needs of the highway
- Scheduled projects will improve nearly twenty miles of US 14 in Dane and Rock County

Scheduled US 14 Projects

- WIS 138 to WIS 92
 - Resurfacing
 - Safety features
- WIS 92 Intersection
 - Reconstruction
 - Double lane roundabout

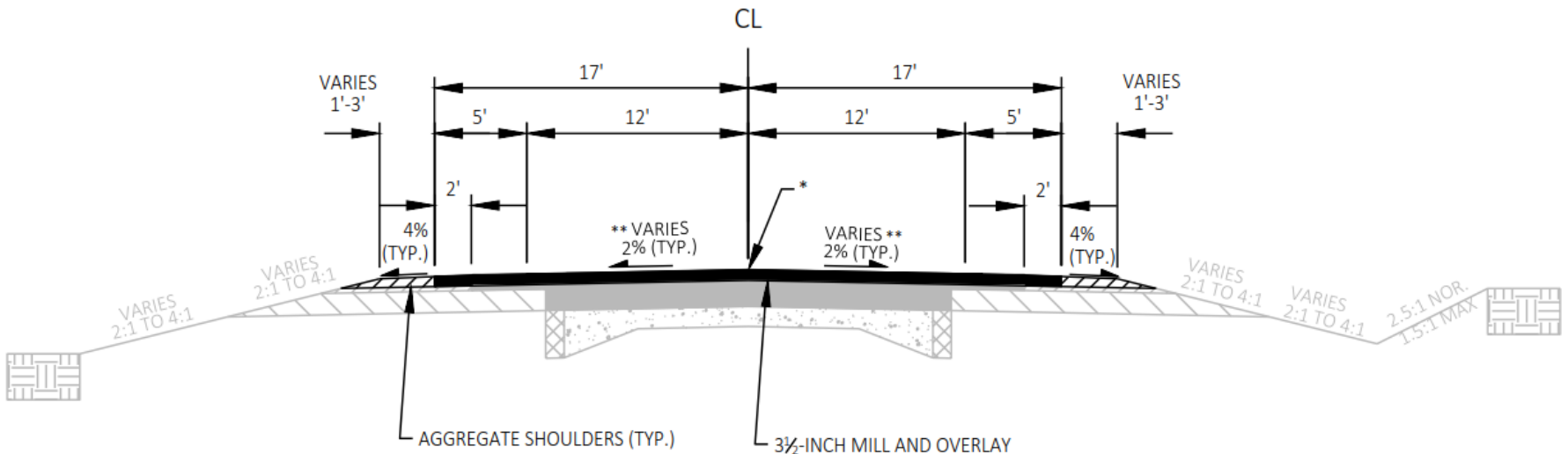


Scheduled US 14 Projects

- Declining pavement conditions
 - Last resurface completed 2005
 - Pavement condition needs to be addressed in a timely manner
- Safety Concerns
 - Crash analysis conducted
 - Safety measures identified to be included in the upcoming projects
 - Ongoing monitoring

US 14 Resurfacing Pavement Improvements

- Resurface highway
 - Mill and overlay pavement 3.5 inches



US 14 Resurfacing

Safety Improvements

- Centerline rumble strips
 - Reduces head-on and run-off-road to left crashes
- Shoulder rumble strips
 - Reduces run-off-road crashes
- Rumble strips to be new design that helps reduce noise



Source: FHWA-SA-07-011

US 14 Resurfacing

Safety Improvements

- Clear trees and shrubs within the right-of-way
 - Will improve the driver sight lines
- Widen paved shoulders by 2 feet
- Installation of new advanced warning signs

US 14 Resurfacing Safety Improvements

- County A Intersection
 - Substandard intersection sight distance in NW corner
 - Flatten the slope to increase driver sight lines



US 14 / WIS 92 Intersection Reconstruction

- History of crashes
 - 25 crashes in past 8 years (2010-2017)
 - 20 were right angle crashes (80% of total crashes)
 - 14 were injury crashes
 - 52% of crashes occur during AM or PM peak hours (6-8 AM; 4-6 PM)

US 14 / WIS 92 Intersection Reconstruction

- Number of severe crashes at this intersection is higher than the state average
 - Intersection qualifies for improvements through the Highway Safety Improvement Program (HSIP)

US 14 / WIS 92 Intersection Reconstruction

Alternatives reviewed:

- All-way stop
- Signal
- Roundabout



Source: Google Earth

US 14 / WIS 92 Intersection Reconstruction

- All Way Stop
 - Poor traffic operations projected; eliminated
- Signal
 - Insufficient traffic to warrant a signal; eliminated
- Roundabout
 - Improves safety, reduces overall delays

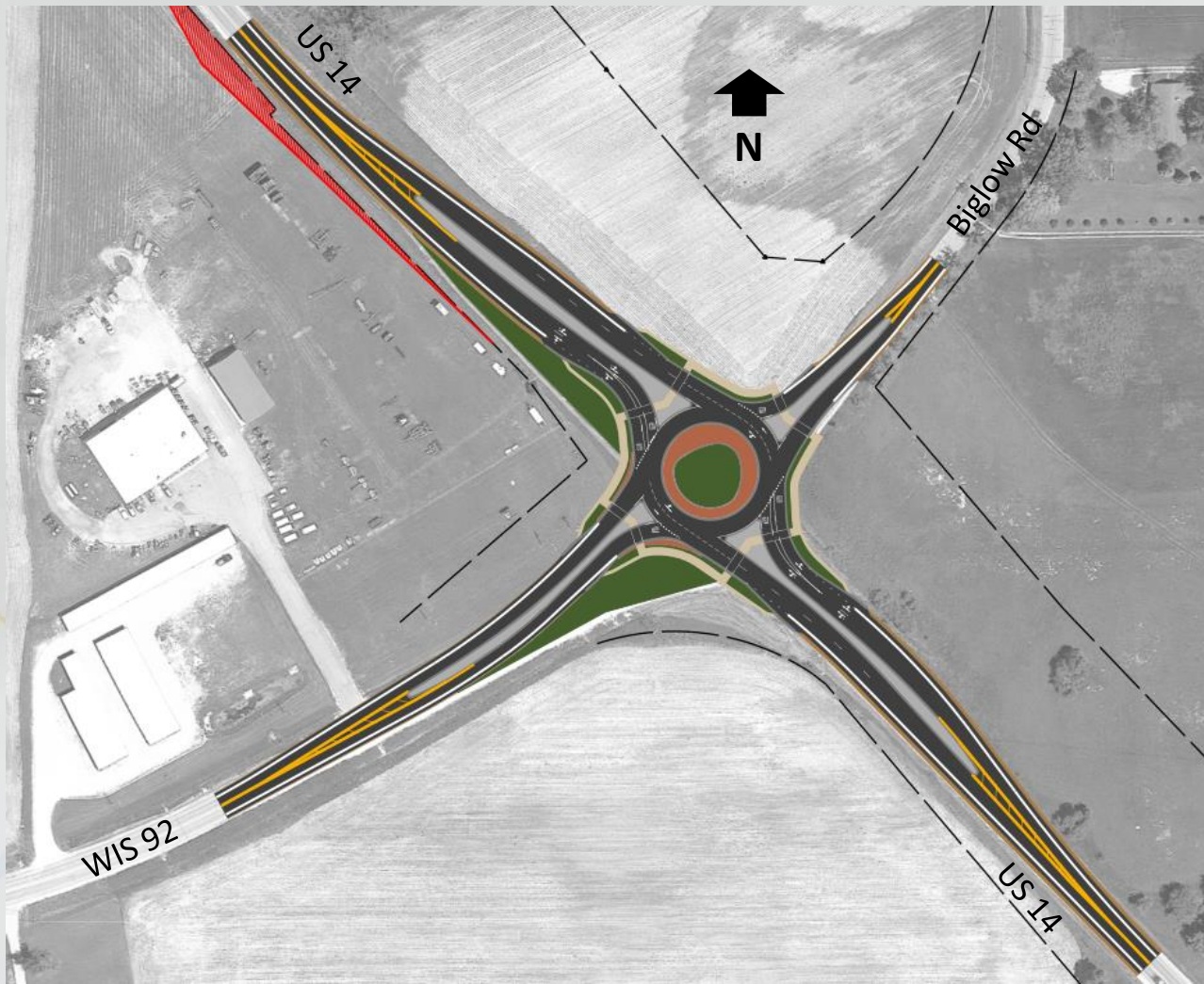
US 14 / WIS 92 Intersection Reconstruction

Proposed Improvement

- Roundabout – Improves Safety
 - Eliminates right angle (T-bone) crashes
 - 80% of crashes at this intersection are right angle crashes
 - Reduces injury severity
 - Slower speeds, crash types are sideswipes
 - 56% of the crashes were injury crashes
 - Replacing stop signs and/or traffic signals with roundabout – 38% reduction in fatal or injury crashes (Source: UW TOPS Lab Safety Study, 2013)

US 14 / WIS 92 Intersection Reconstruction

Proposed Improvement



US 14 / WIS 92 Intersection Reconstruction

Proposed Improvement

- Traffic operations
 - Reduces delay for WIS 92, especially during morning peak period
 - Lowers risk substantially for WIS 92 traffic turning north on US 14



US 14 / WIS 92 Intersection Reconstruction

Design Considerations

- Will a roundabout work at a high speed location like this?
 - Implemented successfully in many similar locations across the state and country
 - 88% of crashes at rural high speed multi-lane roundabouts are property damage only
 - Zero fatal crashes and only two Type A crashes. (Based on 19 similar sites with a cumulative 82 years of data)

US 14 / WIS 92 Intersection Reconstruction

Design Considerations

- Examples of similar roundabouts

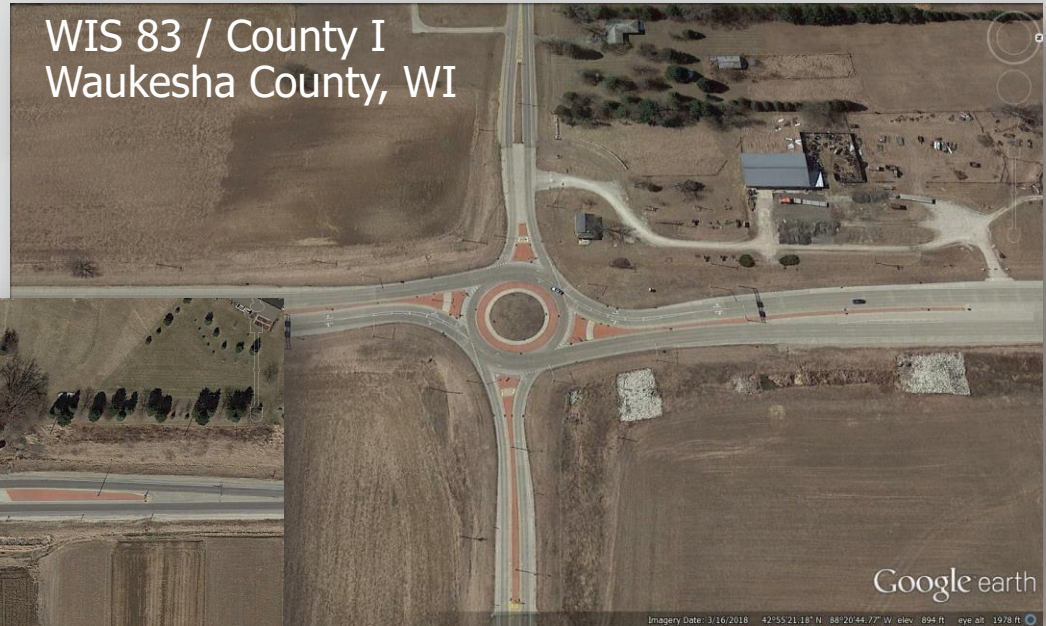


US 14 / WIS 92 Intersection Reconstruction

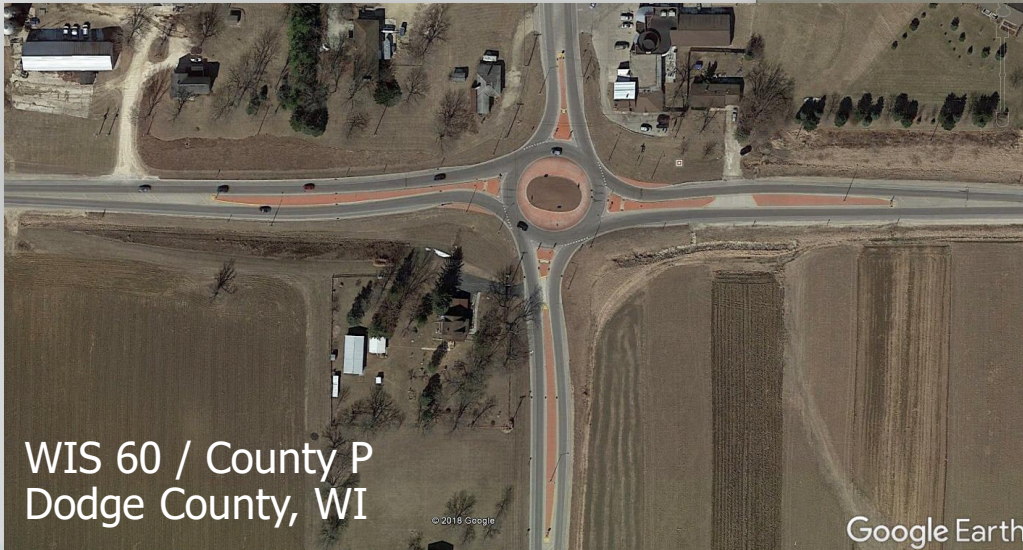
Design Considerations

- Examples of similar roundabouts

WIS 83 / County I
Waukesha County, WI



WIS 60 / County P
Dodge County, WI



Google Earth

US 14 / WIS 92 Intersection Reconstruction

Design Considerations

- Examples of similar roundabouts



US 14 / WIS 92 Intersection Reconstruction

Design Considerations

- Example of similar high speed roundabout
- MSA to add video of 42/57

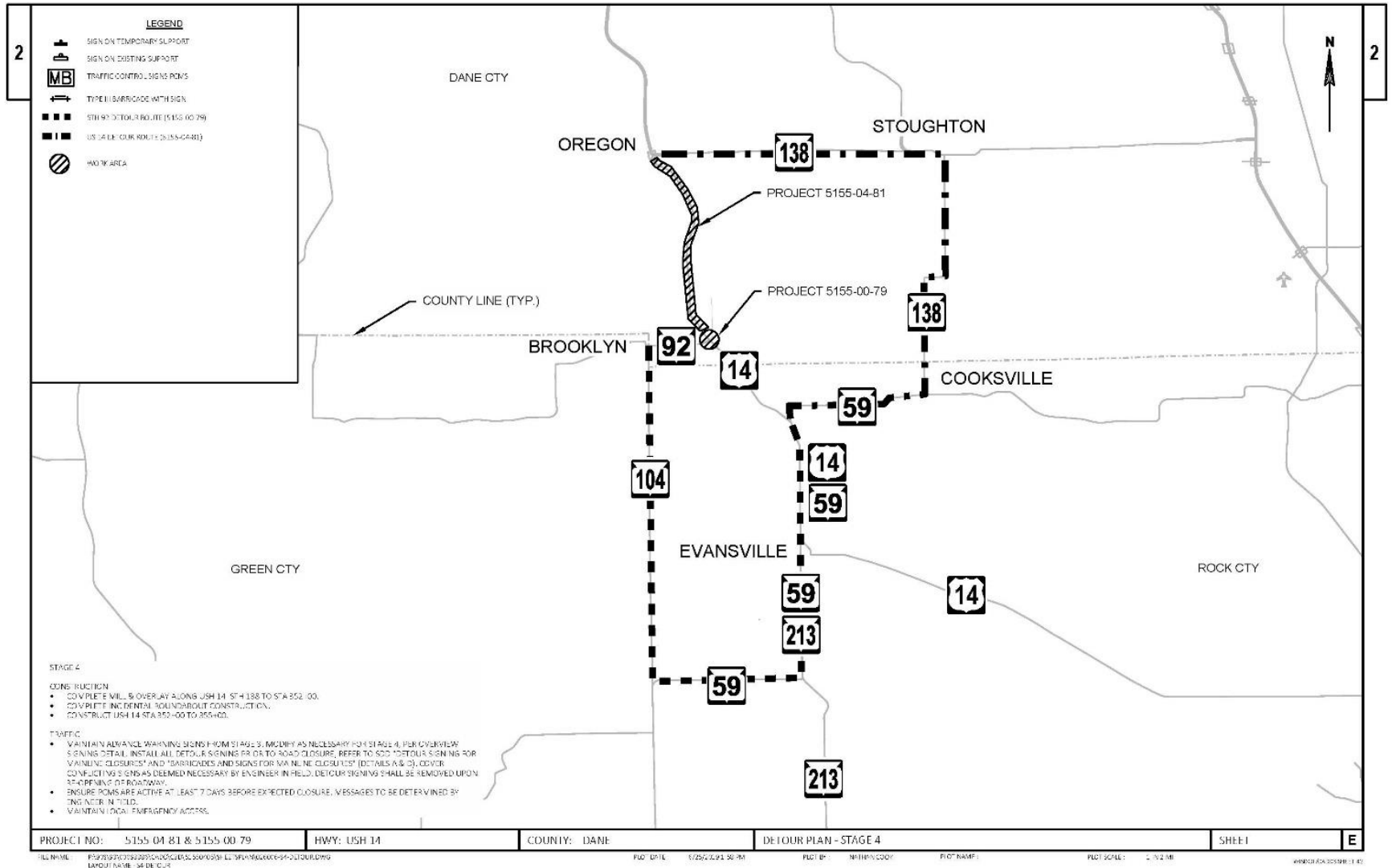
Real Estate

- US 14 resurfacing
 - Acquisition anticipated at County A intersection
 - Property impacts not expected for remainder of corridor
- WIS 92 intersection reconstruction
 - Acquisition anticipated along west side of US 14 to grade ditches

Proposed Schedule & Traffic Impacts

- Both projects expected to be constructed during the fall of 2021 through summer of 2022
- US 14 to remain open to traffic for majority of roundabout construction
- US 14 to be closed to through traffic from WIS 138 to WIS 92 for resurfacing improvements and final stage of roundabout construction
 - Closure expected to last approximately one month
 - Posted detour will utilize WIS 138, WIS 59, and WIS 104
- WIS 92 will also be closed at the US 14 intersection for a portion of the roundabout construction

Detour Route



Design & Public Outreach Schedule

- Public Involvement Meeting #1 – October 2018
- Environmental Document – Spring 2019
- Preliminary Plans – July 2019
- Real Estate Acquisition – Fall 2019
- Final Plans – February 2021
- Construction – Fall 2021 (excavation work at WIS 92 Intersection) and Spring 2022 (Roadway Improvements)

Thank you!

Please move about the room to examine the various exhibits on display. Project staff is available to gather input and discuss any questions you may have.

Feel free to contact project team at any time during the ongoing design process!